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# Water rights for small scale ethanol production

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## Quick Facts

A small scale ethanol plant requires about 16 gallons (61 liters) of water to produce one gallon (4 liters) of ethanol.

Before a decision is made to commence construction of an on-farm ethanol plant, a thorough examination should be undertaken of the necessary water rights and the source of those water rights.

Generally, water rights that currently are decreed for other uses will not be immediately adaptable for on-farm ethanol production.

An individual seeking to convert existing water rights to use for ethanol production should consult competent legal counsel in order to ensure that existing water rights are not jeopardized.

Significant amounts of water are used in the ethanol production process. A small scale ethanol plant requires about 16 gallons (61 liters) of water to produce one gallon (4 liters) of ethanol. This water is needed for generating steam, cooling and preparing mashes. Additional water may be necessary for the increased crop production that might be associated with an on-farm plant.

Colorado, like many western states, regulates surface water rights through the Prior Appropriation Doctrine. Most groundwater rights also are subject to this doctrine with minor exception. In certain areas of Colorado's eastern plains, ground water is regulated in designated groundwater basins through a designated groundwater commission. Before a decision is made to commence construction of an on-farm ethanol plant, a thorough examination should be undertaken of the necessary water rights and the source of those water rights.

Generally speaking, water rights that currently are decreed for other uses will not be immediately adaptable for on-farm ethanol production. Colorado law requires that water rights be adjudicated for specific purposes and limited by time and place of use. Water rights that

currently are decreed for surface irrigation may not be used for a commercial use, such as ethanol production, without going through the Colorado Water Courts for a change of use.

Many farms use small-capacity wells that produce 15 gallons (57 liters) of water per minute or less. These so-called "exempt" wells may be used for fire fighting, domestic water and sanitation purposes for an individual commercial business and for "in-house" non-irrigation uses for a single family residence. Although these wells may not be formally adjudicated, they may not be used for other purposes and may not be used for commercial purposes such as ethanol production.

Groundwater wells located within the boundaries of a designated groundwater basin in Colorado's eastern High Plains are subject to regulations of the groundwater commission of that designated groundwater basin. All groundwater users must obtain their permission to drill and/or use water from existing wells from that designated basin's groundwater commission. Any person that wishes to relocate an existing exempt well must submit a separate application as if a new well was being sought. Such a permit for a relocated well will not be granted if it will substantially change the uses of the water.

## Procedures

Those holders of decreed water rights for other purposes who wish to convert those water rights to cover ethanol production need to comply with the change of use procedures of the Colorado Water Courts. Such procedures take a minimum of seven months. An application may be filed in the district court in the appropriate water division. A filing fee of \$26 plus \$5 for each additional water right involved must be paid to the Clerk of the Court. Application forms are also available from the Clerk of the Court.

The applications are referred to the water referee in that division and notice of the

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application is made according to statute. Any person who wishes to oppose the application may file a verified statement of opposition with the water clerk. The statement of opposition must be filed no later than the last day of the second month following the month in which the application was filed. The water referee conducts an informal investigation and either refers it back to the water judge or renders a ruling. Following the referee's ruling, possibly at the end of the six months

following the application, protests of the referee's ruling may be filed. The water judge may approve the referee's finding or if the matter is contested it may be set for further trial.

An individual seeking to convert existing water rights to use for ethanol production should consult competent legal counsel in order to make sure that their existing water rights are not jeopardized and that the necessary water rights change is obtained for ethanol production.